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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,229	09/27/2000	Max Hamberg	602.331USW1	8053

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EXAMINER

ALI, SYED J

ART UNIT	PAPER NUMBER
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2127

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/671,229

Applicant(s)

HAMBERG, MAX

Examiner

Syed J Ali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

In addition, in claims 1, 6, 7, 11, 16, and 17, the phrase "and/or" renders the claims indefinite because it is unclear what the claim is limited to, since "and" and "or" have distinct meanings. Therefore, the scope of the claims is unascertainable.

Claim Objections

3. Claims 2-5 and 12-15 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. The limitations presented within the identified dependent claims are merely reworded versions of limitations that are presented in independent claims 1 and 11.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 11-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 11 recites limitations pertaining to a system, yet does not clearly limit the system to any sort of physical medium. The claim recites a “device”, which may be a physical medium, however the claim states that the functional assembly is comprised of one or more elements, wherein the elements comprise “an industrial procedure, device, software application and/or process”. The term “and/or” makes it so that it is unclear whether the claim is limited to one or all of the elements. Since none of an industrial procedure, software application, or process is a tangible embodiment, the claim is directed to non-statutory subject matter. Furthermore, dependent claims 12-19 fail to resolve the deficiencies of the parent claim, and are therefore non-statutory for at least the same reasons as the parent claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1-8 and 11-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Sieffert (USPN 5,630,101).

As per claim 1, Sieffert discloses a procedure for implementing an application and eliminating uncontrolled internal interdependencies within the application, in which the application comprises a number of functional assemblies and a functional assembly comprises one or more elements, said element comprising an industrial procedure, device, software solution and/or process, said application producing output data from input data so that the element output data obtained from the elements determine the output data of the functional assemblies, said output data of functional assemblies determining the output data of the application, wherein there are interdependencies formed between elements and/or functional assemblies, characterized in that the element is normalized so that uncontrolled internal interdependencies within the element are eliminated (col. 13 lines 48-67, “The use of remote procedure calls hides the specific details and dependencies, i.e., protocol-specific characteristics, of the individual components. The remote procedure calls handles all of the mechanisms necessary for intercomponent communication. As a result, the communication mechanisms remain generic, eliminating the need for the design of protocol-specific mechanisms in each component”) and the input data supplied to the element unambiguously and alone determines the output data produced by the element (col. 9 line 41 - col. 10 line 3, “The interface executive component 28 is configured to communicatively interconnect a number of components 20, 22, 24, 26 having different protocols on a selected basis to provide significant flexibility. This flexibility provides a medical imaging system 10 capable of achieving communication between a variety of different input imaging devices 12 and one or more output imaging devices 18 having a variety of different functional capabilities”).

As per claim 2, Sieffert discloses a procedure as defined in claim 1, characterized in that the functional assembly comprises one or more normalized elements, which determine the output data of the functional assembly (col. 10 lines 4-27, “The interface executive component 28 selectively binds a series of components 20, 22, 24, 26 having specific protocols necessary to match a particular input imaging device 12, a particular output imaging device 18, and the required hardware interfaces”).

As per claim 3, Sieffert discloses a procedure as defined in claim 1, characterized in that there are one or more functional assemblies and the functional assembly is normalized (col. 10 lines 4-27, “each component is configured according to a particular protocol, but includes a ‘base-class’ software interface that translates the protocol into a base-class protocol generic to every component of like type”).

As per claim 4, Sieffert discloses a procedure as defined in claim 1, characterized in that the normalized functional assembly is a normalized element (col. 9 line 41 - col. 10 line 3, “interface executive component 28 treats each functionally independent component 20, 22, 24, 26 as a ‘black box’ with a clearly identified set of responsibilities and a defined interface. The interface executive component 28 selects the appropriate series of black boxes based on the environment, and binds them together with ‘handles’ to one another to form the complete pipeline”, wherein the “pipeline” can be treated as a single normalized element that applies an input signal and generates an output signal).

As per claim 5, Sieffert discloses a procedure as defined in claim 1, characterized in that the application consists of one or more normalized functional assemblies, which unambiguously and alone determine the output data of the application (col. 9 line 41 - col. 10 line 3, "The interface executive component 28 is configured to communicatively interconnect a number of components 20, 22, 24, 26 having different protocols on a selected basis to provide significant flexibility. This flexibility provides a medical imaging system 10 capable of achieving communication between a variety of different input imaging devices 12 and one or more output imaging devices 18 having a variety of different functional capabilities").

As per claim 6, Sieffert discloses a procedure as defined in claim 1, characterized in that the functional assembly consists of one or more normalized elements according to union, projection and/or selection, where union joins two or more elements in parallel, projection selects one or more of the output data items of the element, and selection specifies the output data on the basis of the input data of the set (Fig. 2, wherein the interface executive joins two input imaging devices in parallel, thereby falling under the claimed definition of union.)

Since the claim recites the one or more elements according to union, projection, **and/or** selection, the scope of the claim is uncertain as to whether one or all of the claim elements are required, as discussed above. This claim has been examined under the assumption that the claim is intended to be normalized according to union, projection, or selection. Therefore, only one of the normalization methods are required, and Sieffert meets the union limitation.

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As per claim 7, Sieffert discloses a procedure as defined in claim 1, characterized in that normalized elements are executed in cascade, so that the output data of one element forms the input data of another element and/or the output data of one element affects the input data of another element (Fig. 2, wherein the various normalized elements of the pipeline are interconnected in cascade as claimed, while the interface executive manages communication between elements).

As per claim 8, Sieffert discloses a procedure as defined in claim 1, characterized in that normalized elements are executed conditionally, so that when a second normalized element produces predetermined output data, input data for a first normalized element is determined, otherwise no input data for the first element is determined (Fig. 2, wherein the communication of the pipeline is bi-directional, such that any output determined can be communicated to previous elements in the pipeline. In addition, since a black box approach is used not only for the entire pipeline, but for each individual component as well, if a particular element produces known output, the input that would have generated the output is known).

As per claims 11-18, Sieffert discloses a system for implementing the normalization procedure of claims 1-8, respectively (col. 1 lines 5-10, "The present invention relates to imaging systems").

Claim Rejections - 35 USC § 103

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sieffert in view of Houtchens (USPN 6,208,954)

As per claim 9, Houtchens discloses the following limitations not shown by Sieffert, specifically a procedure as defined in claim 1, characterized in that the normalized element can be executed repeatedly, the number of repeated executions of a first element being determined by the output data of a second element (col. 1 lines 38-64, "The simulation system further comprises...a router for coupling first simulator inputs and output to second simulator outputs and inputs, respectively...[and] a repeat sequence for restarting said first execution sequence to run until a final simulation time is reached").

It would have been obvious to one of ordinary skill in the art to combine Sieffert with Houtchens since Houtchens provides a system that allows a particular device or element of a system to execute a given number of times, or for a specified length of time, thereby providing additional functionality to the system. For instance, since Sieffert is disclosed for general use in medical imaging systems, the repeat sequence of Houtchens would allow a device, such as a heart monitor to continue to execute for a length of time.

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As per claims 19, Sieffert discloses a system for implementing the normalization procedure of claims 9, respectively (col. 1 lines 5-10, "The present invention relates to imaging systems").

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sieffert in view of Litzenberger (USPN 5,870,460).

As per claim 10, Litzenberger discloses the following limitations not shown by Sieffert, specifically a procedure as defined in claim 1, characterized in that the application is a telephone exchange software application in a mobile communication system (Abstract, "A system allocates data links between a switch and a database for data transactions in a telecommunications network").

It would have been obvious to one of ordinary skill in the art to combine Sieffert with Litzenberger since it provides a type of system that could benefit from the modularized communication system disclosed by Sieffert. Specifically, it is known that there are numerous manufacturers of telecommunications products, where each manufacturer or product may communicate using different protocols. A system that eliminates the need to reprogram the communication links between devices should the components change would be extremely beneficial. Although Sieffert is related to medical imaging devices, the disclosure should not be thought of in only that embodiment. Sieffert discloses a system that allows interchangeability of components that communicate with each other, such that if a device is swapped out, the only necessary changes would be to the input or output drivers of the specific device, depending on

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what type of device is swapped. Thus, Sieffert has a wide range of applicable uses, including the telecommunications network disclosed by Litzenberger.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed J Ali whose telephone number is (703) 305-8106. The examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A Grant can be reached on (703) 308-1108. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Syed Ali
December 4, 2003



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12/12/03